

SEATTLE SALES ENG. OFFICE

SAN FRANCISCO SALES ENG. OFFICE



FONTANA, CALIFORNIA PLANT



WALLCLAD PLANT, RICHMOND, B.C.



NEW WESTMINSTER PLANT

# MANUFACTURING DIVISION

▶ PACIFIC REGION

► PRAIRIE REGION

#### MAIN PRODUCTS AND SERVICES

Designers, Engineers and Manufacturers

Ceramic Bricks & Paving Tiles
Coal Preparation Plants
Coal Engineering & Testing
Construction Management
Crane Service & Pile Driving
Heat Exchangers
Materials Handling Systems
Sampling Equipment
Steel Joists
Steel Plate Work
Steel Sandwich Wallpanels
Structural Steel & Bridges
Vibratory Equipment &
Conveyors



CALGARY PLANT



INTERNATIONAL BRICK & TILE PLANT WABAMUM, ALBERTA



**EDMONTON PLANT** 



SASKATOON PLANT



TORONTO PLANT

COAL TEST PLANT, CALGARY

MONTREAL SALES ENG. OFFICE



BIRTLEY ENG. INC., DENVER, CO.



BIRTLEY ENGINEERING OFFICE (U.K.)

► EASTERN REGION

#### RESOURCE PROCESS DIVISION

► RESOURCE ENGINEERING

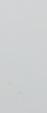
► COAL SCIENCES

CRANE SERVICES

#### **CONSTRUCTION DIVISION**

► CONSTRUCTION MANAGEMENT

MULTIFORM CONSULTANTS LTD. NORTH VANCOUVER

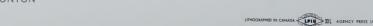


ATLAS, CALGARY



ATLAS, EDMONTON

GREAT WEST STEEL (



# HIGHLIGHTS OF OPERATIONS

In thousands of dollars except as indicated\*

	1972	1971
Net Working Capital†	\$ 7,285	\$ 5,952
Net Fixed Assets	9,679	6,677
Other Assets	728	118
Total Net Assets	17,692	12,747
Represented by:		
Funded Debt	9,122	6,084
Deferred Income Taxes	2,010	1,707
Minority Interest	49	
Shareholders' Equity	6,511	4,956
Fixed Assets of Newly Acquired Subsidiary Companies	812	2,855
Capital Expenditures on Fixed Assets	2,595	1,638
Total Capital Expenditures	3,407	4,493
Total Payroll and Benefits	11,169	7,169
Number of Employees at Year End*	1,218	1,142
Dollars of Investment in Plant per Employee*	9,412	7,060
Sales	31,341	22,608
Earnings from Operations before Depreciation, Interest and Income Taxes	2,307	2,286
Net Earnings	688	791
Net Earnings as a % of Sales	2.2%	3.5%
Net Earnings per Share**	.40¢	.47¢
Cash Flow per Share**†	.84¢	\$ 1.04
†Including current portion of Deferred Income Taxes.		

Great West Steel Industries Ltd. is a Canadian owned group of inter-related manufacturing and engineering companies with a strong engineering orientation. The development of new processes, proprietary products and its effective sales approach has placed Great West Steel Industries in an extremely favourable market position.

Part of the secret of Great West Steel Industries' remarkable growth to an international company is its well qualified, experienced and balanced management team. However, a good part of the credit for success should be attributed to the ironworkers, welders, fitters, crane operators, laboratory technicians, engineers, draftsmen, accountants and clerks who are the Company.

<sup>\*\*</sup>Based on 1,702,495 Common Shares outstanding at December 31, 1972.

# TO THE SHAREHOLDERS AND EMPLOYEES OF GREAT WEST STEEL INDUSTRIES LTD.



KENNETH G. HEFFEL, President

This is the second annual report as a public company of Great West Steel Industries Ltd. together with the Consolidated Financial Statements for the year ended December 31, 1972, and the Auditors' Report thereon.

Sales have increased to \$31,341,000 from \$22,608,000. Earnings from operations increased to \$2,307,000 compared to \$2,286,000 while net earnings decreased to \$688,000 from \$791,000. These figures represent increases of 39% and 1% and a decrease of 13% respectively compared to the prior year.

Our eighth year of operations was disappointing. While the sales volume showed continuing success it was the first time since incorporation that our compounded annual growth rate in net earnings, return on sales and return on average shareholders' equity was interrupted. We are confident that 1972 was simply a consolidation period preceeding a continuation of our previous growth.

This report will therefore attempt to explain in candid terms the difficulties and problems of 1972 and how they are being attacked and solved. This report also deals with 1972 achievements, important new products and services, our growth objectives, and how management envisions the future.

The substantial increase in sales is accounted for by the inclusion this year of the Toronto operations, increased activity in northern Canada, and greater export sales to the western United States.

Growth in earnings from operations and net earnings did not meet our expectations because of the following:

- 1. A construction industry lockout and strike of fourteen weeks duration in British Columbia;
- Continued low margins at Toronto together with non-recurring costs associated with the rationalization and consolidation of a two plant operation into one, the efficiencies of which took longer than expected to achieve;
- 3. Considerable preliminary design and tender costs relating to our unsuccessful attempt to secure the Sukunka Coal Project which were written off in 1972. These costs were the result of a decision to risk the costs of attempting to win the contract against the projected future profits;
- 4. Year end inventory counts which disclosed the need for an inventory write-down. Your company is conducting a critical review of this area and accounting control changes will be implemented if required;
- 5. Fourth quarter net earnings which were affected by lower than expected contract margins. In addition certain large contracts in process at year-end did not reach the expected stage of completion indicated by earlier estimates, causing a reduction in net earnings for the last quarter;
- 6. Net earnings which were further reduced by higher depreciation charges, significantly higher interest on long-term debt and other interest expenses reflecting the construction of new fixed plant facilities and equipment which will lead to increased earnings in the future.

On the brighter side, there were a number of significant achievements last year. An eastern Canadian base of operations to exploit the heavily populated markets of this region was consolidated and rationalized through considerable effort and capital expenditures and a net earnings trend line was established. Further improvement is still needed in margins and this will be one of the company goals in 1973.

The expansion of the company's open web steel joist product into the western United States began in 1972 with an extensive feasibility study and evaluation thereof. This work culminated with a new manufacturing plant going into production by the end of February 1973.

Sales targets for the company in 1972 met forecasts for the eighth year in a row.

The most significant achievement last year was the development of a related product mix serving a market region where continuing growth is attainable with limited downside, and providing protection from future business cycles.

There were two important products and services added to the company's product base during 1972 through the acquisitions of International Brick & Tile Ltd. and Wallclad Products Ltd. The world's first commercial process for the manufacture of brick and tile using flyash as the principal raw material was established in Alberta. Flyash is an unavoidable waste product resulting from combustion of coal at electric power generating stations. The process is an important breakthrough in solids waste recycling and ceramic technology and the products produced meet or exceed American and Canadian standards associated with structural clay products. Recovery and disposal of flyash is one of the most serious and persistent problems facing electric utilities and with increasing use of coal as an energy source the magnitude of the flyash problem will increase.

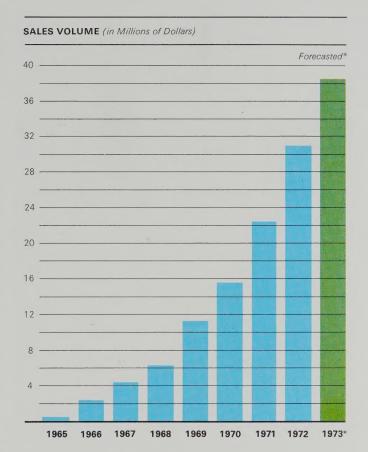
Our underlying reasons for making a substantial commitment in this newly emergent industry related to several factors. These reasons are firstly the close compatability in the construction and building industry between steel and masonry, wall, roof and floor systems, and secondly the coal related nature of flyash. We also believe that depletion of natural clay deposits and concern for ecological damage will compel our society to turn to non-traditional raw materials such as flyash. We can foresee very strong long term demand for flyash products which are already receiving a favourable reaction from the construction trade.

A load bearing exterior and interior wall system product which is complementary to steel joists went into production early in 1973. Complementary designs using this product and steel joists can be integrated in future building systems, particularly schools, shopping centres and warehouses.

The company has well defined long term growth objectives established within its management philosophy of directing all corporate resources to the development of highly engineered products or services related to the construction and natural resource industries with emphasis on products or services of a proprietary nature.

These objectives on a trend line basis for the next five years include a 15 percent compounded sales growth, a 20 percent growth in net earnings, an improving rate of return on sales to a target of 5 percent at the end of the period, and a return on average equity over the period of 12 percent. We believe that the foregoing objectives are realistically attainable since the Company has in its present product base several proprietary products which together with other factors should sustain these goals for the foreseeable future.

Although Canada and the western United States



will remain the largest single market for several years, opportunities exist — particularly for open web steel joists and flyash brick and tiles — to expand to regions of political and economic stability.

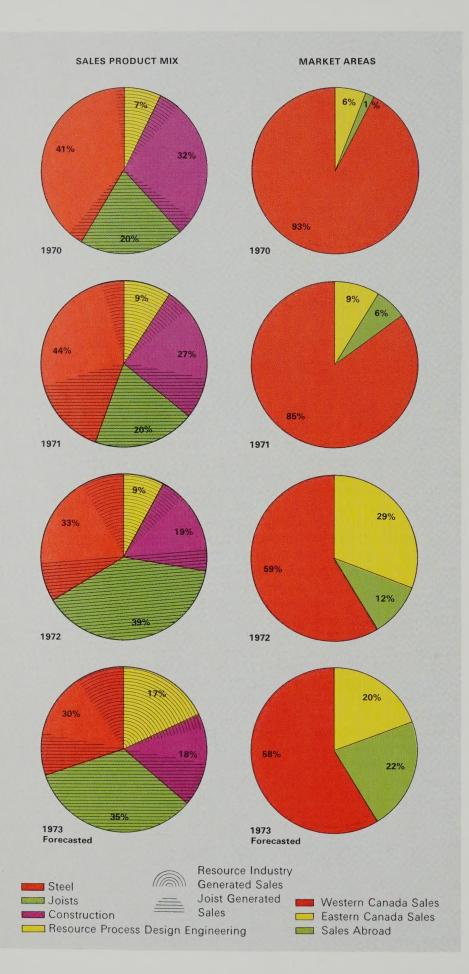
Our Annual Report this year emphasizes people. This is our most important corporate resource, although the fact is not reflected on any financial statements. While all employees deserve equal credit, space restricts us, and therefore, we are presenting the company story to the shareholders and public at large primarily by focusing on some of our key people.

We are pleased to report that all manufacturing operations and offices once again experienced good labour relations last year. The results of last year were, as always, made possible by the loyal support and effort of our employees at all levels and to them we extend our sincere appreciation.

On behalf of the Board of Directors,

K. G. Heffel, Chairman and President.

Vancouver, B.C. March 5, 1973.



Great West Steel Industries employs effectively a decentralized operating management system with centralized financial control and has only a small executive office staff at Vancouver.

William E. Allen, R.I.A., M.C.I., F.C.I.S., Corporate Secretary, has held senior management positions with several Canadian steel companies.

George B. Bogdanow, M.A. (Econ.), Dipl.-Kfm., R.I.A., Vice President Finance and Administration, was Divisional Controller of a multiplant steel fabricating company and held positions as Treasurer and Controller. As a member of the faculty of Simon Fraser University he has taught financial management and management accounting for the past 5 years.

Bernhard L. Diefenbach, Vice President Prairie Region, has more than 20 years of experience in the steel industry, most of it on the Prairies. He is very knowledgeable in all technical, sales and administrative aspects and is highly respected in the industry.

Ian L. Hamilton, B.Sc., P.Eng., Vice President Operations, was Division General Manager and later Vice President Structural Operations of a major Canadian manufacturing company. He is well known in the structural steel industry.

Harley B. Harwood, A.A.S.A., Corporate Controller, joined GWS as Alberta Controller. He has several years of senior accounting experience.

D. Scott Kennedy, B.Sc., P.Eng., Vice President Pacific Region, was manager of the Vancouver operations and previously Chief Engineer of the Edmonton operations prior to his present appointment.

Raymond D. Lucas, M.B.A., B.Sc., P.Eng., Vice President Corporate Development, served for nine years with the Canadian Government Trade Commissioner Service in Australia, New Zealand and at the United Nations. He later spent 1½ years as Development Manager with a major Canadian consulting engineering firm.

**D. Barry Milton**, R.I.A., Treasurer, was formerly GWS New Westminster Chief Accountant.

Gerry Norton, Ph.D., B.Sc., C.Eng., M.I.M.M., Vice President Resources, was Lecturer and Head of the Mineral Processing Division, School of Mining Engineering, University of Nottingham before he joined GWS. He is a recognized authority on coal processing and mineral separation and has had extensive practical and consultative experience.

Alan D. Turnbull, M.S. (Eng.) P.Eng.. Vice President Eastern Region, joined the company as Saskatoon Manager in 1966 after several years as Chief Engineer of a western Canadian steel fabricator.



"Our cover salutes the loyal workers of GWS, the people who design, manufacture and install our many products. Guiding these employees is a strong management team whom we picture on the following pages along with some of our products."

KENNETH G. HEFFEL, President.













- 1. Raymond D. Lucas (right) Vice President Corporate Development and William E. Allen (left) Corporate Secretary, inspect our most recent product, a jumbo sized facing brick made from flyash at our Wabamun, Alberta, plant.
- 2. Ian L. Hamilton, Vice President Operations.
- 3. Bernhard (Bernie) L. Diefenbach, Vice President Prairie Region is one of the founders of the Company.
- 4. D. Barry Milton (left) Treasurer, George B. Bogdanow (centre) Vice President Finance and Administration and Harley Harwood, Corporate Controller review the evaluation of a proposed capital expenditure project.
- 5. Alan D. Turnbull, Vice President Eastern Region.
- 6. D. Scott Kennedy, Vice President Pacific Region, was the first professional engineer to join GWS. Mr. Kennedy played an important role in the conceptual design of the open web steel joist product.
- 7. Dr. Gerry Norton, Vice President Resources is a recognized authority on coal processing and mineral separation.



PRAIRIE REGION - GWS EDMONTON

At Edmonton there are two manufacturing plants. The main plant of 93,100 square feet is located at the original GWS plant site with a satellite plant of 13,500 square feet nearby.

The main plant primarily manufactures steel and mechanical work for the resource industry and intermediate and longspan open web steel joists, while shortspan open web steel joists are manufactured at the satellite plant.

A new 80 feet by 400 feet bay and large outside crane runways were added last year in response to the very high demand from the resource industry in northern Canada. The crane runways will significantly reduce our materials handling costs and improve efficiency.

Typical examples of the work carried out at the Edmonton plant last year were the following:

 As part of a major refinery expansion in the Edmonton area, the manufacture and installation of —

Process furnaces

Pipe modules

Heat exchangers

Vessel ladders and platforms

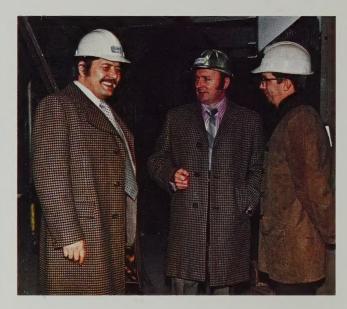
- 2. As part of the Athabasca tar sands projects in northern Alberta:
  - a) the manufacture and installation on site of heavy fabricated steel structures and major modifications on conveyor equipment for Great Canadian Oil Sands Ltd.
  - b) the assembly and erection of a large Bucyrus Erie dragline for Syncrude Canada Ltd.

GWS Edmonton also supplied substantial quantities of fabricated steel to mining and oil companies in the Northwest Territories.

The backlog of work at our Edmonton plants is at an all time high and we expect to remain very busy throughout 1973.

This Bucyrus Erie Dragline was assembled and erected within the manufacturer's recommended time schedule. The dragline has a bucket capacity of 17.5 cubic yards, weighs approximately 850 tons and has a working cycle of 60 seconds. It is used by Syncrude Canada Ltd. on the Athabasca tar sands site in northern Alberta.





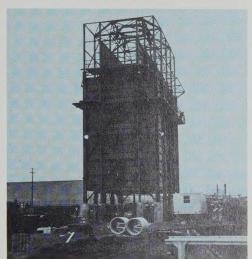
Above. (left to right) K. F. Gunter Diefenbach, Vice President and Manager of Edmonton Operations with his Sales Manager T. Raymond Turnbull and his Chief Engineer, R. B. Lomheim, B.Sc., P.Eng. Mr. Diefenbach is one of the founders of the company. Prior to this he held various technical and engineering positions with several prairie steel fabricators. Mr. Turnbull is a mechanical engineer with experience in mechanical, structural and process engineering and marketing in Canada and the United Kingdom. Mr. Lomheim had prior engineering experience in the steel manufacturing industry.

- 1. A. Murray Lount, B.A.Sc., P.Eng. is the Manager of "Taskmaster", the Company's computerized engineering data bank. Mr. Lount has extensive engineering and computer experience and is the author of several papers on the application of computers to design and engineering problems in the steel fabrication and construction industries. He has held senior engineering positions with several consulting firms.
- 2. George Simmt, Edmonton Plant Superintendent (right), and Bill Radtke, Production Manager are "oldtimers". Mr. Simmt has held the position of Plant Superintendent since inception while Mr. Radtke was our first Erection Superintendent. Both have contributed significantly to the growth of the company.
- 3. Open web steel joists are a major product.
- **4.** This mobile gravel crusher was built in our Edmonton shop for Hewitt-Robins (Canada) Ltd.
- **5.** One of several oil refinery process furnaces built recently for GKN Birwelco of England, for installation at a major Edmonton refinery.











PRAIRIE REGION - GWS CALGARY

The Company has two manufacturing plants at Calgary, the larger of the two primarily manufactures and installs two different types of heat exchangers under agreement or licence from major U.S. corporations. The smaller plant manufactures miscellaneous steelwork and houses the coal science test wash plant and laboratory.

Heat exchangers are an integral part of every oil refinery and natural gas processing plant as well as every manufacturing plant requiring dissipation of heat or heat pollution control.

The Airfin heat exchangers use air as a cooling medium. The cooling section consists of two pressure chambers interconnected by a large number of tubes each with extended aluminum fins. Large fans are used to force the flow of air across the tubes to carry the heat away. The complete units, including the aluminum fins which are attached using highly specialized equipment, are manufactured at Calgary. Each unit is hydrostatically tested to ensure freedom from leaks.

Shell and tube heat exchangers are constructed of fire box quality steel and elliptical heads, forged steel connections, seamless pipe and condenser quality tubing. The hot liquid circulates through the tubes and the coolant around the tubes. The heat transfers through the tube walls of the exchanger.

The proposed building of the Mackenzie Delta natural gas pipeline through many presently untapped oil fields will create the need for numerous gas processing plants and a very strong demand for heat exchangers.

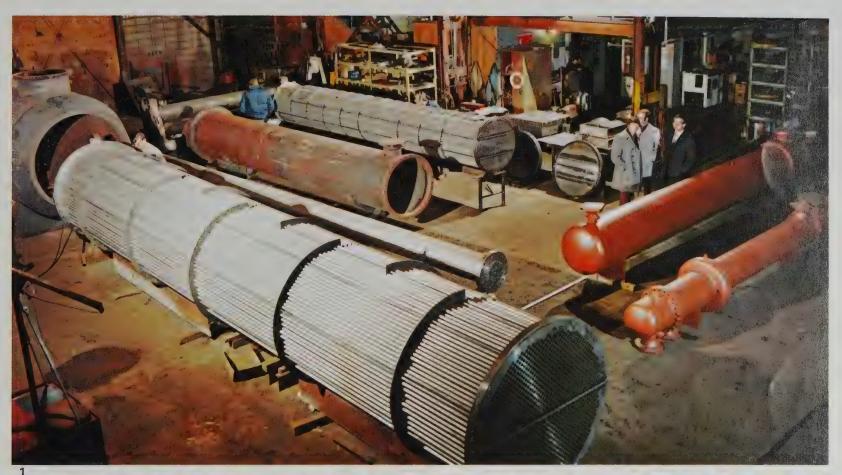
Airfin heat exchangers look and function like huge car radiators.



Above. A bank of Airfin heat exchangers supplied and installed by GWS at a major gas processing plant in the foothills of Alberta.

- 1. Some shell and tube heat exchangers manufactured recently for a major Alberta refinery. These exchangers are designed, built and function similar to steam boilers.
- 2. The Calgary management team (from left to right) Gerry Broer, Production Manager, Harry A. Wyss, Vice President and Calgary Manager, Lawrence Beck, Plant Superintendent, and John S. Barker Sales Manager. Mr. Broer was our Calgary Plant Superintendent for five years before his present appointment. Mr. Wyss joined GWS in September, 1969, after 15 years of management positions in the structural steel industry. Mr. Beck was formerly our Saskatoon Plant Superintendent. Mr. Barker took structural engineering at the Belfast College of Technology and has many years of relevant experience in Canada and Great Britain.







INTERNATIONAL BRICK & TILE LTD.

Effective November 1, 1972, GWS acquired 60% of the outstanding shares of International Brick & Tile Ltd. of Edmonton. Funds supplied by GWS, totalling \$1.2 million, are being used to enlarge IBT's present brick manufacturing plant at Wabamun, Alberta, and to construct a 2-million square foot capacity plant for manufacture of paving and quarry tile.

The Company holds patent rights on a process for the manufacture of brick, tile, and other ceramic products from flyash. A commercial-scale demonstration brick plant based on the process was opened earlier this year by IBT adjacent to Calgary Power's coal-burning power station at Wabamun, 35 miles west of Edmonton.

Flyash is an unavoidable waste product resulting from combustion of coal at electric power generating stations. Its recovery and disposal has always been one of the most serious and persistent problems faced by electric utilities. Re-cycling of ash into valuable manufactured products is of obvious benefit not only to the power utilities but to society as a whole.

The flyash ceramic process was originally developed at the University of West Virginia's Coal Research Bureau under multi-million dollar grants from the U.S. Department of the Interior. Inventors of the process, Harry Shafer Jr., M.Sc., Sc.B., and Charles Cockrell, M.S.E., B.Sc., left West Virginia University in 1971 to join IBT to prove the commercial viability of the process. IBT's president, Jack Ondrack, M.B.A., B.A., previously taught business courses at the University of Alberta, having studied both there and at Harvard's Business School.

Peter J. Harrison, Vice-President Marketing, joined IBT in early 1973. For the past 10 years he was a principal in a major Edmonton-based masonry and ceramic tile distributorship.

Norman Ward, transferred from Birtley Engineering Ltd. He is a processing plant commissioning specialist with more than twenty years experience in cement kilns, coal preparation plants, coke works, steel smelters, ammonia plants and power stations.

The Wabamun, Alberta, plant is the world's first commercial-scale application of the West Virginia Shafer-Cockrell process, generally considered an important "breakthrough" in solids waste recycling and ceramic technology. The present product, facing brick, has met or exceeded the American ASTM and the Canadian CSA specifications and is lighter, stronger and less costly than conventional clay brick.

The new tile plant will begin commercial production by mid-year of 1973. Paving and quarry tile are used commonly for floor surfacing and

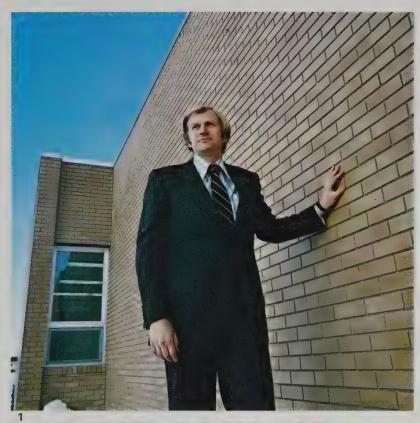
walls in heavy pedestrian traffic areas, such as shopping malls and university and other institutional buildings. There is at present no significant manufacturer of low moisture absorption paving tile in Canada and the demand is presently being met almost entirely by imports.

Another product, load-bearing masonry block, holds good market potential and IBT is making a close study of its prospects.

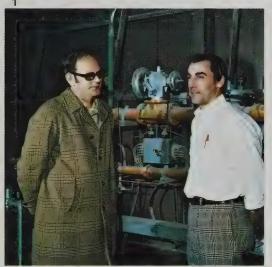
The Company was recently awarded a \$222,000 grant under the Programme for the Advancement of Industrial Technology (PAIT) for the further development of the brick and tile process.

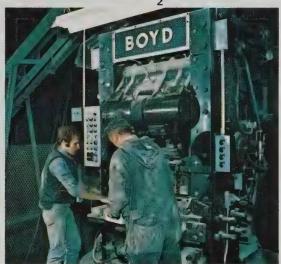
IBT plans to establish a network of Companyowned or licensed plants in Canada and abroad.

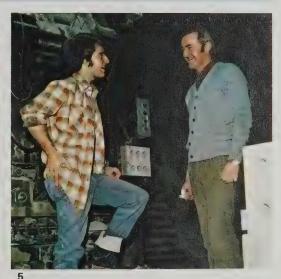
- 1. Jack W. Ondrack, M.B.A., B.A., President of International Brick & Tile Ltd. inspects a brick wall of the John Barnett School, Edmonton (Architect Wm. Hnidan). This was the first major project using IBT flyash facing brick. Mr. Ondrack is a Harvard graduate in Business Administration.
- 2. Several colours and shades of standard facing bricks and giant bricks are now manufactured commercially.
- 3. The co-inventors of the flyash process are Harry E. Shafer, Jr., M.Sc., Sc.B., (left) and Charles F. Cockrell, M.S.E., B.Sc. (right). Both are former professors at the School of Mines, West Virginia University at Morgantown, where they conducted research leading to the flyash process.
- **4.** "Green" or unfired flyash brick being transferred from Boyd press to shuttle cars prior to firing in kiln. Firing time for flyash brick is 18-20 hours, compared with up to 72 hours for clay brick.
- **5.** Harry M. Tyrrell, Brick Plant Superintendent (right), is a native of the Wabamun, Alberta area. He is a former R.C.A.F. flight instructor and joined IBT at its inception of operations. He is an experienced millwright and welder.
- 6. Laboratory samples of paving tiles produced from flyash by IBT. Commercial production of paving and quarry tiles will commence in mid-1973 when the new plant, now under construction, goes into production.
- 7. Paving tiles and quarry tiles are used extensively in shopping malls and plazas such as the recently completed Londonderry Mall at Edmonton. At present most tile of this type is imported from Europe.















PRAIRIE REGION - GWS SASKATOON





Improvements in the world demand for potash and a high level of farm income combined to produce a buoyant year in Saskatchewan for our small Saskatoon plant.

Some of the more noteworthy jobs included:

- Mill renovation and conveyor structures for Cominco Potash;
- Compactor building addition and loadout building addition for Central Canada Potash;
- Palm Dairies plant, Saskatoon;
- Repair depot for the Department of Highways at Swift Current;
- Regional Vocational School, Meadow Lake;
- South Hill Shopping Mall, Prince Albert.

A new 60 by 120 foot fabricating plant with outside crane runways is nearing completion to better enable us to service the Saskatchewan and Manitoba market. The offer of a Department of Regional Economic Expansion grant of approximately \$97,000 for the construction of this plant was accepted.



**Above.** Special epoxy enamel coated open web steel joists for a processing plant await shipment.

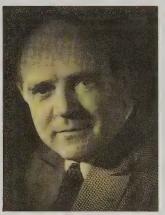
**Centre.** Our small Saskatoon plant is often very crowded, hence the need for the expansion now underway.

Below. Our Saskatoon Manager, James (Jim) Kroeker (centre) joined GWS six years ago after several years in various sales and technical functions with other companies in the steel industry. His Engineer and Sales Manager, Farouk M. Shah, B.Eng. (Sask.) Dipl. in Building and Construction (Baghdad) has six years of steel design and detailing experience. Miss Judy Jenkin started with GWS six years ago and is our "Girl Friday" at Saskatoon.

PACIFIC REGION - GWS CALIFORNIA







- 1. John D. Hunt, B.Sc., P.Eng. (right), Manager of Great West Steel Industries Inc. and Dave Cowan, Plant Superintendent at the entrance to our new Fontana, California plant. Mr. Hunt is a graduate of the University of British Columbia and did postgraduate work at the University of Toronto. For the past 20 years he held senior engineering, sales and management positions with several large Canadian steel fabricating companies. Mr. Cowan is a template maker and fitter by trade and was shop foreman at GWS New Westminster plant before his transfer to Fontana as Plant Superintendent.
- 2. Thomas E. Sawyer, Production Manager, occupied the Edmonton senior management position of Canron Ltd for many years. His considerable experience in the steel industry includes general management, production, purchasing, marketing and industrial relations.
- 3. George H. Pilbrow, General Sales Manager of GWS is presently assisting in the establishment of our California operation by manning our Sales Engineering Office at Burlingame near San Francisco, California. He joined an Edmonton steel fabricator as Chief Draftsman in 1948 and advanced to the position of Division General Manager.

A market study of California and the south west United States early in 1972 led to establishment of an office at Burlingame near San Francisco in October. Further market research led to the decision to establish manufacturing facilities.

The Company preferred a tidewater location but passage of last summer's plebiscite "Proposition 20 — California Coastal Initiative", placing a moratorium on new construction within 8 miles from the coast, made an inland location mandatory. A location at Fontana, about 70 miles east of Los Angeles and near Kaiser Steel's rolling mill offered the maximum advantage. Arrangements were made to lease a modern 45,000 square foot facility which will satisfy the Company's initial production requirements for this area. Joist production commenced in February 1973 on an automated production line. Supplementary structural steel is produced to provide steel frame engineered packages for most types of industrial and institutional buildings.

The chord sections required to manufacture the full range of our joists and trusses are cold formed from steel strip. The plant meets recently introduced Federal O.H.S.A. requirements. Senior management was transferred from GWS Canadian operations. Engineering design is assisted by computer aids. Marketing is supported by an office in Burlingame staffed by a GWS sales engineer and by agents at Fresno, Calif. and Phoenix, Arizona.

Great West Steel Industries Inc. supplied 75 foot long trusses with GWS chord sections and 146 tons of structural steel for this 150 foot by 250 foot steel warehouse at Seattle, Washington.



PACIFIC REGION — GWS VANCOUVER AND SEATTLE



David A. Lloyd, M.Sc., B.A.Sc., P.Eng., Manager of New Westminster operations, was GWS Vancouver Sales Manager before his present appointment. He has extensive sales, engineering, design and contract management experience with several West Coast steel fabricators.

Activity at our plant at New Westminster remained at a generally high level throughout the year, although a lengthy construction strike and lockout interrupted this level of activity and affected profitability. Sales volume, however, was maintained through effective marketing which emphasized "design packages" and the advantages of steel over competitive materials. Geographically, we were successful in penetrating the U.S. Pacific Northwest states, as well as Alaska, and a substantial volume of export sales from New Westminster was thus achieved. Good sales backlogs exist for 1973.

A sales engineering office in Seattle was established under the capable direction of Mr. Russell Kenney, who is well known throughout the area. Working closely with the GWS engineering staff at New Westminster, several major design, fabrication and erection contracts were obtained. Included were the million-dollar contract for the Washington Square Shopping Centre in Portland, Oregon and the Captain Cook Hotel at Anchorage, Alaska.

A modern bridge over the Khyex River was designed, engineered, fabricated and erected during 1972 for the British Columbia Department of Highways.

In the coming year, improvement in joist design, computerized inventory control, introduction of more computerized design and drafting are expected to increase the operating efficiency of the New Westminster plant and with high and rising lumber prices we expect that a substantially greater share of the construction market will switch to steel.

- 1. Steel for this launch and tug shop at Seattle, Washington, was designed and fabricated by our New Westminster plant.
- 2. Russell T. Kenney (right), Manager of the GWS Seattle, Washington office and Klaus Samsel, Sales Engineer (left). Mr. Kenney attended the University of Washington. He was Construction Manager of oil platforms in Cook Inlet, Alaska, worked on the Space Needle in Seattle, the World Trade Centre in New York and held several other positions in the northwest. Mr. Samsel was previously GWS New Westminster Chief Draftsman.
- 3. David G. Calder, B.Sc., M.I.C.E., C.Eng., Chief Engineer (right) and Mr. William J. Malcolm, M.I.C.E. (Struct.), Plant Engineer (left). Mr. Calder was Project Engineer with a major Canadian consulting engineering company and Assistant Chief Engineer for a major competitor. Mr. Malcolm has fourteen years of senior engineering experience in western Canada and Scotland.
- 4. Robert Waldhauser, Plant Superintendent (right), GWS New Westminster, held similar positions with other Canadian steel fabricators. Henry Becker, Sales Manager (left) spent many years with a major firm of engineering and general contractors. Leon Trethewey, Contracts Manager (centre), is a graduate of Nottingham University in civil and structural engineering. For 14 years he was Operations Manager of a major steel fabricator and prior to this, Project Engineer in charge of St. Lawrence Seaway Liftspans and the Ogdenburg Suspension Bridge.
- **5**. Hatzic Secondary School, British Columbia; Killick Metz Field Associates, Architects developed an economic and flexible modular school building system utilizing GWS joists and roof trusses.

**Below.** A modern, GWS built bridge over the Khyex River, Yellowhead Highway near Prince Rupert, British Columbia.













WALLCLAD PRODUCTS LTD.

Wallclad Products Ltd. was acquired on August 1, 1972 to supplement our main product, open web steel joists used as supports in floor and roof framing systems.

Wallclad Products manufacture, supply and install decorative metal wall panels, architectural metal faced sandwich panels, laminated sandwich modular wall units, self supporting metal laminated sandwich building units and pre-packaged Uniplex <sup>TM</sup> buildings, using advanced technology of a proprietary nature.

Sandwich wall panels are mass produced on a fully automated production line at a new plant in the greater Vancouver area. They are used as exterior or interior modular wall units in single or multi-storey buildings. On-site installation of the wall units is extremely rapid.

A sandwich panel consists of three basic components:

- the outside face which provides a weatherproof finish;
- the inner core which controls sound and temperature transfer;
- the inside face which acts as a vapour barrier and interior finish.

Panels are manufactured in 48" widths from adhesives and core material used in aircraft and aerospace vehicles. Several different cores can be supplied to architectural specifications, however, superior performance is obtained from using urethane filled honeycomb. This core combines the insulative quality of urethane with the high strength of honeycomb to give a light, strong, insulating panel at medium cost. It has the highest weight-strength-insulative factor of any core material, it is fire resistant and provides good sound insulation.

Architects can choose from a wide range of facing materials. Most frequently used is maintenance free plastic laminated or precoated coloured steel, available in 28 standard colours. Finishes last ten to twenty-five years.

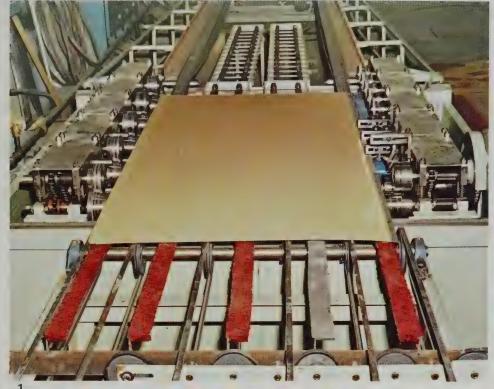
Wallclad panels can be installed with standard tools. As the system is completely factory produced, only on-site anchoring screws are required. The panels are easily handled by hand, eliminating the need for cranes.

Sandwich panels are also used in the manufacture of frameless and self-supporting Uniplex TM

modular buildings. They find use as compressor buildings, pumping stations, radio transmitter buildings, meter rooms, job shacks and shelters.

The benefit of the Wallclad acquisition to GWS in terms of margins and a greater share of the market will increase over time because:

- a) On-site construction costs are rising at a faster rate than in-plant costs.
- b) Automation is easier to effect in a manufacturing plant than on a construction site.
- 1. The new fully automated continuous production line at Wallclad's Richmond, B.C. plant produces fully finished wallpanels starting with prefinished coiled steel sheet as received from the rolling mills. The line flattens, trims, roll-forms, cuts to size and laminates the outer and inner faces to the core material.
- 2. Two complete Wallclad Uniplex TM Buildings were air freighted to Belize City, Belize (formerly British Honduras). Wallpanels can be readily palletized and their light weight make air freighting feasible. Udo Adam, B.Com., Office Manager of Wallclad checks the shipment. Before transferring to Wallclad, Mr. Adam was Office and Credit Manager for GWS Edmonton.
- 3. Fred Eisen, Manager of Wallclad Products Ltd. (right) and Curtis C. Eyestone, Marketing Manager, review drawings for the Surrey Senior Secondary School for which Wallclad panels are specified. Mr. Eisen has many years of engineering and administrative experience in the steel fabricating industry in Canada and the U.S.A. He joined GWS Vancouver four years ago as Manager of Shop and Field Construction. Mr. Eyestone has developed and test-marketed the Wallclad steel sandwich panel for the past three years. He has 15 years of pertinent experience and training in engineering, structural design and marketing. Mr. Eisen and Mr. Eyestone worked together to invent the special I-lock system (Patent pending) for interlocking the wallpanels.
- **4.** A Wallclad Uniplex ™ building shelters equipment atop a mountain for radio station CFEK, Fernie, B.C.
- **5.** The Public Library in Cranbrook, B.C. is a completely "Systems Built" building incorporating Wallclad modular wall units.
- **6.** The Municipal Office and Firehall in Stewart, B.C. utilizes Wallclad modular wall and window units. A Uniplex TM building was used for the combination hose drying tower/mechanical penthouse on the roof of the main building.













**EASTERN REGION — GWS TORONTO** 

The consolidation of the two Toronto plants into one modern enlarged plant will be completed by the end of the first quarter of 1973 and should reduce costs significantly by mid-1973. 42,000 square feet of shop space was added and a new office building of 11,000 square feet was built. The consolidated plant was designed for efficiency in materials handling and features four acres serviced by overhead cranes. The old plant at Dundas Street will be closed during March, 1973 and will be sold for a commercial development. This consolidation and rationalization is expected to produce significant cost reductions and improve efficiency.

During the past year GWS shipped joists to all of the eastern provinces and some New England states with Ontario accounting for the major portion

In the past the Toronto plants primarily produced a single product line of open web steel joists and their accessories. During 1972 we successfully commenced our diversification plans by obtaining the contracts for Gulf Oil refinery structures at Clarkson, Ontario, initial work on the British Petroleum refinery project at Oakville and the bulk mail handling facilities at the Mississauga Gateway Post Office.

J. David Belcourt, P.Eng., our Montreal Sales Engineer concentrated his efforts on the Quebec and Newfoundland markets.

Several modular structures were manufactured in 1972 using the GWS open web joist and truss system. More are being designed for early 1973.



(Left to right) George E. Glasper, M.I.C.E., P.Eng., Chief Engineer, Toronto, Gerald Dobbs, Vice-President and Toronto Manager and Campbell A. Roylance, B.Sc., P.Eng., General Sales Manager, Eastern Region. Mr. Dobbs was Vice-President and Manager of GWS Calgary operations for six years prior to his Toronto posting. Previously he held senior management positions with two western Canadian steel fabricators. His educational background is engineering. Mr. Glasper joined GWS in 1971 after holding various engineering positions with a well known engineering company and a structural steel fabricator, Mr. Roylance has been employed continuously in the Canadian steel industry since graduating from the University of Manitoba in 1960. Prior to his posting to Toronto he was resident GWS Sales Engineer in Winnipeg, Manitoba.

Architects' sketch of the 42,000-square-foot plant addition and the new office building at our Mississauga (Toronto) plant now nearing completion. The consolidation of operations at the new location will be completed by the end of the first quarter of 1973, leading to substantial savings.





- 1. GWS Toronto supplied all floor joists for the 26 storeys of the Stelco Office Tower in Hamilton, Ontario, known as "Lloyd D. Jackson Square".
- 2. Open web steel joists, mass produced in our modern plants, are used extensively as floor and roof supports in warehouses, shopping centres, schools, hospitals, offices and apartment buildings.
- 3. Part of the mechanized joist production line in our Toronto plant.





## **CONSTRUCTION DIVISION**

MULTIFORM CONSULTANTS LTD.



David W. Nairne, B.Sc., P.Eng., is Vice-President Construction of the parent company and President of Multiform Consultants Ltd. Mr. Nairne is a civil and structural engineer who was Project Engineer and later Assistant Manager of Edmonton operations for a large developer/contractor before joining us.

Right. Paul A. Loewen, B.A.S. (Eng.), Project engineer (left); Ken H. Bell, Project Manager (centre) and Sam Jowett, Chief Draftsman discuss the latest commercial development project.

**Below.** Kiln expansion for Columbia Cellulose, Terrace, B.C. The project, undertaken by Multiform, consisted of six buildings totalling 100,000 square feet and utilizing 300 tons of steel.

Multiform Consultants Ltd. consists of a team of Professional Engineers and Construction Managers engaged in the fields of consulting engineering, industrial design and project management.

The Company in the past year has completed such diversified projects as three sawmill buildings, a shopping centre, two office buildings, and several industrial shops. These projects were taken on at the conceptual stage and designed and constructed for a fixed cost. GWS products are incorporated into the structures wherever possible.

To date Multiform has operated only in Western Canada although recent bids as far afield as Wyoming and Resolute Bay, N.W.T. hold promise of a much wider market.

The Company intends to expand its operations to include commercial development work and "systematized" buildings. This will enable Multiform to utilize the full range of GWS personnel and products.





# CONSTRUCTION DIVISION

#### ATLAS CONSTRUCTION & CRANE SERVICE



(Left to right) Don Devlin, Sales Representative, Don Gruhlke, Construction Superintendent, Dick Neilson, Sales Representative, and Tom Pytel, General Manager of Atlas are the well respected Edmonton management team of Atlas Crane Service.

Our Crane Service Division had a very busy and successful year. From locations at Edmonton and Calgary, it serves customers in Alberta, British Columbia, Manitoba, Saskatchewan, Yukon and Northwest Territories. Their fleet of 45 self-propelled cranes range in capacity from 7 to 150 tons and includes many modern hydraulic cranes.

Several of these cranes come equipped with booms and jibs which, when fully extended are tall enough to erect a fifteen storey building or lift a cement bucket to the top of a twenty storey building.

In addition to the installation of GWS manufactured products, Atlas erects and installs structural steel, tanks and containers, equipment, bridges and precast concrete for third parties in the resource industries, in manufacturing and in construction. Atlas also provides a pile driving service, performs general rigging and rents cranes and concrete pumps.

GWS construction crews in Alberta continue to be employed in the maintenance of heavy industrial plants.

Tom Pytel, General Manager of the Atlas Crane Service Division came up through the ranks. He is now in his 23rd year of service with Atlas and is well known and respected in western Canada for his crane rental expertise and his knowledge of structural steel and bridge erection.

Other senior members of the Atlas team are Don Gruhlke, Construction Superintendent, a twenty-year employee; Don Devlin, Sales Representative; Al Sands, Calgary Branch Manager, with 18 years service, and Neil Jamieson, Office Manager, who is also in his 18th year of service with Atlas.

All employees are members of the Crane Operators and/or Ironworkers Union.



Above. Two self-propelled Atlas pile drivers driving the heavy steel pipe friction piling for the new Stelco steelmill addition at Edmonton, Alberta. Atlas pile driving and crane service is in strong demand in Alberta, British Columbia, the Yukon and the Northwest Territories.

Below. Atlas employs a fleet of 45 self-propelled cranes ranging in capacity from 7 to 150 tons. Several of these cranes were used in the erection of framework and installations of mechanical work and tanks for the Proctor and Gamble pulpmill at Grande Prairie, Alberta.



# RESOURCE PROCESS DESIGN DIVISION

BIRTLEY ENGINEERING LTD. — ENGLAND

Under its capable and aggressive management team, Birtley had a good year in spite of the long coal miners' strike and a generally very difficult trading year in Great Britain.

The coal preparation plant for Fording Coal Ltd. near Fernie, British Columbia, was completed and commissioned, the design and engineering for the Fryston Dense Medium coal preparation plant for the National Coal Board was started, five coal froth flotation plants equipped with the Birtley-Humboldt high capacity agitators were installed and several plants were modernized.

Birtley continued to add to the number of automatic sampling plants installed at mineral processing plants throughout the world by booking seven orders, including a large sampling plant for Cementos Tolteca in Mexico.

Coal, coke, iron ore pellets, sinter, limestone, hematite, lead zinc sinter, burnt lime, phosphate, pyrite, flue dust, raw sugar and rock salt are all sampled by Birtley units in Australia, Canada, Curacao, Italy, Mexico, Spain, South America, Sweden, West Africa, U.S.A. and the U.K.

Vibratory equipment supplied included ultraheavy duty resonance screens for a Devonshire quarry. Coal and coke plant spares and maintenance business was increased by the acquisition of the U.K. business of the Coppee Company (G.B.).

- 1. George C. Hambleton, B.Sc., M.I.M.M., C.Eng., Managing Director (right) and Fred Jordison, H.N.C. Mech. Eng., Deputy Chairman and Technical Director (left). Mr. Hambleton was Manager of the Mineral Process Division of Birtley and Coal Preparation Engineer for the National Coal Board and others for 14 years. For several years he lectured at Technical Colleges in the U.K. and published several papers on coal preparation. Mr. Jordison has been with Birtley in engineering and management positions since 1951. He has to his credit several successful inventions in the coal processing and materials handling field.
- 2. Keith J. A. Fawbert, I.C.W.A., Financial Director confers with Chief Accountant Brian R. Bragg (left), Commercial Manager Frank R. Cook (right).
- 3. Sales Manager Sid Dickinson (right) confers with Engineering Manager Harold Crossley (centre), Bruce Hood Sales Administrator (left rear) and Doug C. Morris, Technical Manager (left front). This group is responsible for final tenders.
- 4. The Birtley Engineering drafting department.











The Fording Coal Ltd. coal preparation plant was commissioned during March of 1972. It is reported to have "one of the best early coal production records among all the western producers." (Financial Post, March 3, 1973).

Engineered by Birtley, who also supplied the process equipment (excluding the dryer) it has a capacity of 3 to 4 million tons of coal per annum. Designed for high efficiency and simplified maintenance it has three sections comprising Birtley-Tromp dense medium wheel wash boxes for primary and secondary separation of 5" x ½" coal (3), Birtley-Coppee DSM dense medium cyclones for ½" x ½ mm coal, eight banks of froth flotation cells (4) with automatic control on pulp density for the minus ½ mm and Birtley-Humboldt centrifuges (5).

Operations are either automatically or remotely controlled from a central location which overlooks the operating floors (2). The low profile of the building permits overhead crane access to all equipment for ease of maintenance and also blends aesthetically with the environment (1).

Birtley also supplied two double wheel paddle extractors with 2,300 tons/hr. capacity and automatic sampling equipment to monitor the ash content.

The coal mine situated along the Fording River about 40 miles north of Sparwood, B.C., is owned by Canadian Pacific Investments Ltd. and by Cominco Ltd. Cominco manages the property.









5

# RESOURCE PROCESS DESIGN DIVISION

BIRTLEY ENGINEERING (CANADA) LTD.



Dr. Worthington, General Manager reviews a plant design.

The past year has involved the Resource Companies in a strong marketing program aimed at both short and long term work intake. Birtley Engineering (Canada) Ltd. completed a number of feasibility projects on coal and widened its horizons to cover coal engineering from exploration management through process test work, production economics and marketing of coal products.

In the United States, Birtley Engineering Incorporated of Colorado has joined with the M.W. Kellogg Co. of Houston, Texas (a Pullman subsidiary) in the presentation of synthetic natural gas projects to potential clients such as Panhandle Eastern-Peabody Coal, Northern Natural Gas — Inter Cities, Lone Star Gas and Colorado Interstate Gas. Our unique application of coal science to the problems of materials handling associated with coal gasification projects is now recognized by most of the gas and oil companies in the United States. Wyoming coals are currently being processed in our Calgary test-plant.

Donovan F. Symonds, Ph.D., B.Sc., is Manager of the Coal Science and Minerals Testing Division at Calgary. Dr. Symonds trained in coal science and process plant control at the Universities of Newcastle and Nottingham. He has researched pneumatic separation techniques for coal and minerals.



A concentrated effort in marketing Birtley expertise in such special areas as coal property evaluation and automatic sampling and blending will continue in the coming year.

Gerry Norton, Ph.D., B.Sc., P.Eng., M.I.M.M., C.Eng., Vice President Resources, came to Canada in 1970 to head up the Canadian operations of the Resource Process Division of GWS. Dr. Norton has several years of experience as Scientific Technologist with the National Coal Board, as Metallurgist for Blanchland Fluorspar and as Senior General Processing Engineer for Head Wrightson. For five years he taught mineral processing and coal preparation at the Universities of Durham and Nottingham and he has published several articles on coal preparation and mineral dressing. He is a Vice-President of the Rocky Mountain Coal Operators Association of Denver, Colorado.



Kenneth H. Moizer (left) and John McBeth (right) check detail drawings for the material handling system of a Fertilizer Plant with Mr. Keith Cooper. Mr. Moizer and Mr. McBeth are both mechanical engineers. Mr. Moizer has 14 years and Mr. McBeth 23 years experience in layout, detailing and design of coal preparation and handling plants.

Frank Worthington, Ph.D., B.Sc., P.Eng., General Manager of Birtley Engineering (Canada) Ltd., obtained his academic training in Chemical Engineering at the University of Birmingham and also holds an advanced degree in Mechanical Engineering. He was a Coal Preparation Engineer with the National Coal Board before joining Head Wrightson Process Engineering Ltd. in 1954 to become their Chief Engineer — Coal Preparation. During this period the company designed, constructed and commissioned some 40 coal preparation plants. In 1970 he came to Canada as Special Project Manager of Simon-Carves. Dr. Worthington is an authority on coal preparation, particularly the use of magnetic medium and the Dutch State Mines heavy medium or water only cyclones.

# CONSOLIDATED STATEMENT OF EARNINGS AND RETAINED EARNINGS

for the year ended December 31, 1972

EARNINGS	1972	1971
SALES	\$31,341,474	\$22,608,218
EARNINGS FROM OPERATIONS BEFORE DEDUCTING		
THE FOLLOWING CHARGES	\$ 2,306,675	\$ 2,285,896
Depreciation	360,788	297,486
Interest on long-term debt and amortization of debenture discount	618,072	290,389
Other interest	170,011	183,760
	1,148,871	771,635
EARNINGS BEFORE INCOME TAXES	1,157,804	1,514,261
INCOME TAXES		
Current	97,759	51,901
Deferred	371,708	671,211
	469,467	723,112
NET EARNINGS FOR THE YEAR (note 11)	\$ 688,337	\$ 791,149
RETAINED EARNINGS	1972	1971
BALANCE — BEGINNING OF YEAR	\$ 2,351,320	\$ 1,237,632
Unamortized discount and issue costs of Series A	7. 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	
Convertible Debentures (note 10)	(97,114)	_
Sales and income tax adjustments of prior years	(16,958)	_
(Excess) of consideration paid over adjusted book value		044400
of acquisitions (note 2)	(440,253)	344.106
Share issue expenses		(21,567)
	1,796,995	1,560,171
NET EARNINGS FOR THE YEAR	688,337	791,149
BALANCE—END OF YEAR	\$ 2,485,332	\$ 2,351,320

# **CONSOLIDATED BALANCE SHEET**

as at December 31, 1972

ASSETS  CURRENT ASSETS  Accounts receivable (note 9) \$ 9,826,089	
Accounts receivable (note 9)	
Inventories (notes 4 and 9)	5,866,258
Prepaid expenses	77,008
17,053,700	13,844,447
FIXED ASSETS (notes 5 and 9)	6,676,524
UNAMORTIZED DEBENTURE DISCOUNT AND EXPENSES.	5 A. 118,191
DEFERRED RESEARCH AND DEVELOPMENT EXPENSES (note 6)	1
\$27,461,400	\$20,639,162
LIABILITIES	
CURRENT LIABILITIES	
Bank advances—secured (note 7) \$2,247,00	\$ 1,242,266
Accounts payable and accrued liabilities	5,811,652
Income and other taxes payable	62,596
Current portion of long-term debt. 904,39	776,333
Current liabilities exclusive of deferred income taxes	7,892,847
Deferred income taxes (note 8)	965,077
11,081,698	8,857,924
LONG TERM DEBT (note 9)	6,083,706
DEFERRED INCOME TAXES (note 8) 696,93	741,728
MINORITY INTEREST	9
\$20,950,09	\$15,683,358
SHAREHOLDERS' EQUITY	
CAPITAL STOCK (note 10) \$ 4,025,98	\$ 2,604,484
RETAINED EARNINGS	2,351,320
6,511,31	4,955,804
SIGNED ON BEHALF OF THE BOARD	
Director	620 620 162
\$27,461,400 Director	\$20,639,162

# CONSOLIDATED STATEMENT OF SOURCE AND USE OF WORKING CAPITAL

for the year ended December 31, 1972

		1
SOURCE	1972	1971
Current operations	\$ 1,076,692	\$ 1,297,938
Issue of common shares, net of expenses	1,421,500	1,223,433
Long-term debt, net of debenture discount and issue expenses	7,196,963	6,943,558
Long-term debt assumed on acquisition of subsidiary	280,000	87,127
Minority interest	48,979	_
Excess of adjusted book value of subsidiaries acquired over consideration paid		344,106
	10,024,134	9,896,162
USE		
Long-term debt retired	4,788,707	2,015,890
Deferred research and development costs	386,464	
Fixed asset additions resulting from acquisitions — net of deferred income taxes	811,776	2,855,300
Capital expenditures on fixed assets—net	2,594.497	1,638,402
Excess of consideration paid for subsidiaries over adjusted book value (note 2)	440,253	
Sales and income tax adjustments of prior years	16,958	
	9,038,655	6,509,592
INCREASE IN WORKING CAPITAL	985,479	3,386,570
WORKING CAPITAL—BEGINNING OF YEAR	4,986,523	1,599,953
WORKING CAPITAL - END OF YEAR	\$ 5,972,002	\$ 4,986,523

# NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

for the year ended December 31, 1972

#### 1. PRINCIPLES OF CONSOLIDATION

The consolidated financial statements include the accounts of all subsidiaries. Operations of subsidiaries acquired during the year have been included from the dates of acquisition.

The accounts of the United Kingdom subsidiary have been translated into Canadian currency at the rate of exchange in effect at December 31, 1972, except that fixed assets have been translated at the rate in effect at the date of acquisition and earnings at the average rate during the year.

#### 2. ACQUISITIONS

During the year, the company made two acquisitions, both of which have been accounted for as purchase transactions:

- (a) On August 31, 1972, with effect from August 1, 1972, the company acquired 94.5 percent of the outstanding shares of Wallclad Products Ltd. (Wallclad) whose principal business is the manufacture and installation of steel-faced sandwich wallpanels. The company is proceeding under Section 181 of the British Columbia Companies Act to acquire the remaining 5.5 percent of the outstanding shares.
- (b) On and with effect from October 31, 1972, the company acquired 60 percent of the outstanding shares of International Brick & Tile Ltd. (I.B.T.) whose principal business is the manufacture of ceramic bricks and paving tiles.

These transactions are summarized as follows:

Acquisition (1997) The Acquisition (1997) The Acquisition (1997) The Acquisition (1997) Acquisition (1997) The Acq	Net assets Adjusted book acquired Adjustments at vendor's book value Adjustments Adjusted book Adjustments Adjus	
Wallclad	\$ 47,056) \$ 42,422 \$ (\$ 4,634) \$ 73,260 \$ 77,894	
[LB.T. ] [A. A. A	315,000 (241,529) 73,471 435,830 362,359	
	\$267,944 (\$199,107) (\$22 \$68,837 \$509,090 \$440,253	

The consideration paid was all cash except for \$10,000 of the amount paid for Wallclad which is due May 31, 1973.

Under the terms of the I.B.T. acquisition agreement, the parent company is obliged to provide loans for expansion or other purposes up to \$485,000. At December 31, 1972, \$320,000 has been loaned under the above terms and \$165,000 remains to be provided for completion of the tile plant during 1973. The excess of consideration paid over adjusted book value of the net assets acquired represents pre-acquisition research and development and pre-production expenses and has been charged to retained earnings in the year. The Company's share of I.B.T. pre-acquisition tax losses is \$242,000. No recognition has been given to the potential tax savings which may result from the application of these losses against future I.B.T. income.

#### 3. ACCOUNTING BASIS FOR RECORDING INCOME

Profits on contracts are recorded on the basis of the company's estimates of percentage of completion on individual contracts, commencing when progress reaches a point where experience is sufficient to estimate final results with reasonable accuracy. That portion of the total contract price is accrued, which is allocable to contract expenditures incurred and work performed.

As contracts extend over one or more fiscal years, revisions in costs and profit estimates during the course of the work are reflected in the accounting period in which the facts which required the revisions become known.

At the time a loss on a contract becomes known, the entire amount of the estimated ultimate loss is accrued.

# **NOTES** (continued)

4. INVENTORIES CONTROL OF THE CONTRO	1972	. 1971
Raw materials and supplies	\$3,357,912	\$3,367,028
Work-in-progress. A	3,784,942	2,499,230
	\$7,142,854	\$5,866,258

Raw materials and supplies are stated at the lower of cost and net realizable value. Work-in-progress represents costs and estimated earnings in excess of billings.

5. FIXED ASSETS TO THE REPORT OF THE PROPERTY		1972		1971
	Cost	Accumulated depreciation		Net book value
Buildings	\$ 4,087,214	\$ 260,437	\$3,826,777	\$2,082,428
Machinery and equipment	6,154,117	1,523,658	4,630,459	3,224,296
	10,241,331	1,784,095	8,457,236	5,306,724
Land of the second of the chief and the chief	1,222,351		1,222,351	1,369,800
	\$11,463,682	\$1,784,095	\$9,679,587	\$6,676,524

#### 6. DEFERRED EXPENSES

Post-acquisition research and development and pre-production expenses of I.B.T. and of Wallclad, pre-production expenses of the new California plant, and design and programming costs of computerized engineering data are recorded as deferred expenses and will be amortized over five years from commencement of commercial production or utilization.

### 7. SECURITY FOR BANK ADVANCES

Bank advances are secured under the same instruments as the term bank loans referred to in note 9 (a).

### 8. DEFERRED INCOME TAXES

Income taxes actually payable in respect of the year have been reduced because of differences between the time certain items of revenue and expense are recorded in the accounts and the time they are reported for income tax purposes.

Deferred income taxes show separately the amounts arising principally from: 1972 1972 1971
Holdbacks receivable and other current timing differences
Capital cost allowances claimed in excess of depreciation recorded in the accounts
9. LONG-TERM DEBT Outstanding principal 1971
(a) Term bank loan with interest at 1% above prime bank rate secured by accounts receivable and inventories, due March 31st, 1974 and subject to further review at that time \$1,200,000 \$1,200,000
Term bank loans with interest at 3/4% to 2% above prime bank rate secured by accounts receivable, inventories, certain machinery and by mortgage debentures on real property aggregating \$2,500,000 repayable in equal monthly or annual instalments by 1977
Carried forward

# **NOTES** (continued)

9. LONG-TERM DEBT (continued)	Original Principal	1972	1971
Carried forward	\$ 7,065,039	\$ 3,979,390	\$5,360,039
Unsecured advances from minority shareholders in International Brick & Tile Ltd.	47,480	47,480	
1972 Series 8½% Sinking Fund Debentures (see note 9 (b) below)	6,000,000	6,000,000	
1971 Series A 8½% convertible debentures redeemed or converted during 1972	<u> </u>		1,500,000
	\$13,112,519	10,026,870	6,860,039
Less: Current portion		904,390	776,333
		\$ 9,122,480	\$6,083,706

Payments required in the next five years to meet long-term debt instalments, including sinking fund payments, are:

1973				. \$ 904,390
1975		 · · · · · · · · · · · · · · · · · · ·		. 880,000
1976 . ,		 	14	. 350,000
1977		 		150,000
TOTAL	* * * * * * * * * * * * * * * * * * * *	 		\$3,179,390

- (b) Pursuant to a prospectus dated June 15, 1972, the company issued \$6,000,000 8½% Sinking Fund Debentures, 1972 Series with share purchase warrants attached, maturing June 15, 1992. The trust indenture provides, among other things, the following:
  - (1) At the company's option, redemption for other than sinking fund purposes of any part of these debentures at a premium of 8½% in 1973, decreasing by ½% per year to 1990.
  - (2) Establishment of a sinking fund sufficient to retire \$3,900,000 aggregate principal during the years 1974 through 1991.
  - (3) A floating charge on all of the company's properties and assets both present and future as security for these debentures.

#### 10. CAPITAL STOCK

Authorized —	1972	1971
2,500,000 common shares without nominal or par value,		
with a maximum selling price of \$10 per share		
Issued and fully paid —		
1,702,495 (1971—1,446,625)	\$4,025,984	\$2,604,484

During the year the maximum selling price per share was increased from \$6.25 to \$10.00.

During the year the company called for redemption the Series A Convertible Debentures. This resulted in the conversion of 2,843 debentures in the amount of \$1,421,500 into 255,870 common shares and the redemption of the balance of the debentures for cash of \$78,500. The unamortized discount and issue costs of the debentures have been charged to retained earnings.

As at December 31, 1972 there were outstanding common share purchase warrants entitling the holders to purchase 300,000 common shares at a price of \$8.50 per share on or before June 15, 1977 and thereafter at a price of \$10 per share on or before June 15, 1982.

# NOTES (concluded)

#### 11. EARNINGS PER SHARE

The earnings per share figures are calculated using the weighted daily average number of shares outstanding during the year:

	19/2	19/1
Basic	\$.40	\$.60
Fully diluted	\$.40	\$.52

Fully diluted earnings per share are based on the conversion of the 1971 Series A Convertible Debentures at January 1, 1972 and the exercise of the 300,000 share purchase warrants at date of issue, June 15, 1972, assuming the proceeds of the warrants would yield income equal to the average interest rate on the long-term debt of the company. Included in this calculation are imputed earnings, net of income taxes, of \$59,000.

Earnings per share based on the number of shares outstanding at December 31, 1972 were \$0.40 (1971—\$0.55).

#### 12. REMUNERATION OF DIRECTORS AND SENIOR OFFICERS

Remuneration of directors and senior officers of the company amounted to \$295,913 for the year ended December 31, 1972 (1971—\$242,235).

# **AUDITORS' REPORT**

TO THE SHAREHOLDERS OF GREAT WEST STEEL INDUSTRIES LTD.

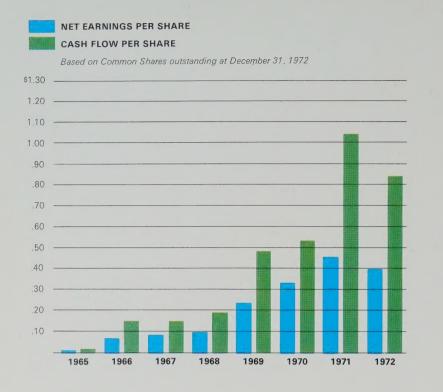
We have examined the consolidated balance sheet of Great West Steel Industries Ltd. and its subsidiaries as at December 31, 1972 and the consolidated statements of earnings and retained earnings and source and use of working capital for the year then ended. Our examination included a general review of the accounting procedures and such tests of accounting records and other supporting evidence as we considered necessary in the circumstances.

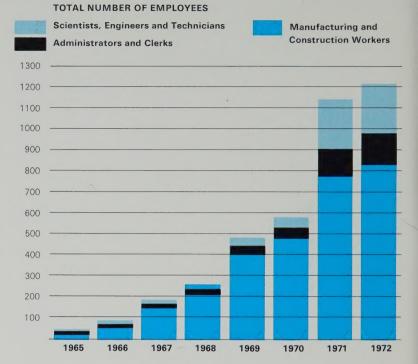
In our opinion these consolidated financial statements present fairly the financial position of the companies as at December 31, 1972 and the results of their operations and the source and use of their working capital for the year then ended, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Vancouver, B.C. February 23, 1973

Chartered Accountants

Mc Donald, Curie To





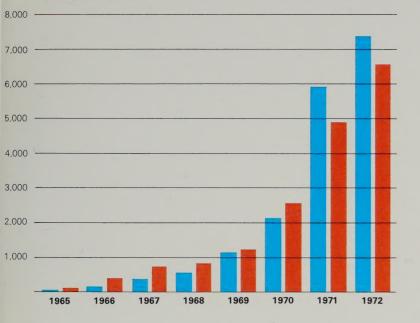
# HISTORICAL REVIEW In thousands of dollars except as indicated\*

\*\*Based on 1,702,495 Common Shares outstanding at December 31, 1972.

FINANCIAL POSITION AT YEAR END	1972	1971	1970	1969
Net Working Capital†	\$ 7,285	\$ 5,952	\$ 2,118	\$ 1,142
Net Fixed Assets	9,679	6,677	2,160	1,602
Other Assets	728	118	_	4
Funded Debt	9,122	6,084	947	1,065
Deferred Income Taxes	2,010	1,707	734	498
Minority Interest	49		_	_
Shareholders' Equity	6,511	4,956	2,597	1,186
CAPITAL EXPENDITURES	3,364	4,494	605	739
EMPLOYMENT				
Scientists, Engineers and Technicians*	224	221	45	37
Administrators and Clerks*	163	142	66	58
Manufacturing and Construction Workers*	831	779	482	400
Total Number of Employees*	1,218	1,142	593	495
Total Payroll and Benefits	11,169	7,169	5,161	3,016
INCOME AND RELATED DATA				
Sales	31,341	22,608	15,742	11,721
Earnings from Operations before deducting the following	2,307	2,286	1,487	942
Depreciation	361	298	98	64
Interest on long-term debt	618	290	149	61
Other interest	170	184	138	64
Earnings before Income Taxes	1,158	1,514	1,102	753
Current Income Taxes	98	52	305	9
Deferred Income Taxes	372	671	231	352
Net Earnings for the Year	688	791	566	392
Net Earnings as a % of Sales*	2.2%	3.5%	3.6%	3.4%
Net Earnings per Share**	.40¢	.47¢	.33¢	.23¢
Cash Flow per Share**†	.84¢	\$ 1.04	.53¢	.48¢
†Including current portion of Deferred Income Taxes.				



In thousands of dollars



1968     1967     1966       \$ 594     \$ 387     \$ 131     \$ 1,005       5     5     5     20	246 1
1,005     777     610       5     5     20	246 1
5 5 20	1
604 394 315	205
156 79 55	
	_
844 696 391	82
381 301 588	269
19 16 10	5
32 29 14	9
208 147 66	32
259 192 90	46
1,830 1,343 591	209
6,184 4,237 2,659	739
444 330 303	73
53 33 28	23
68 44 15	
41 22 13	5
282 231 247	45
21 9 9	7
94 93 121	5
167 129 117	33
2.7% 3.1% 4.3%	4.5%
.10¢ .08¢ .07¢	.02¢
.19¢ .15¢ .15¢	.03¢

# GREAT WEST STEEL INDUSTRIES LTD.

#### **DIRECTORS**

Kenneth G. Heffel, Vancouver George B. Bogdanow, Vancouver Bernhard L. Diefenbach, Edmonton K. F. Gunter Diefenbach, Edmonton Gerald Dobbs, Toronto Michael L. Galper, Toronto Ian L. Hamilton, Vancouver D. Scott Kennedy, Vancouver Michael P. Pick, Toronto Alan D. Turnbull, Toronto Leslie J. Bodie, Winnipeg

#### OFFICERS

Kenneth G. Heffel, President George B. Bogdanow, Vice President Finance and Administration Ian L. Hamilton, Vice President Operations Raymond D. Lucas, Vice President Corporate Development David W. Nairne, Vice President Construction Gerard Norton, Vice President Resources Bernhard L. Diefenbach, Vice President Prairie Region D. Scott Kennedy, Vice President Pacific Region Alan D. Turnbull, Vice President Eastern Region K. F. Gunter Diefenbach, Vice President Gerald Dobbs, Vice President Harry A. Wyss, Vice President D. Barry Milton, Treasurer William E. Allen, Secretary

#### **TRANSFER AGENTS & REGISTRARS**

For common shares and share purchase warrants: The Canada Trust Company, Vancouver, Toronto, Edmonton, Regina, Winnipeg, Montreal For debentures:

The Royal Trust Company, Vancouver, Edmonton, Toronto, Montreal

# AUDITORS

McDonald, Currie & Co., Chartered Accountants

#### BANKERS

The Toronto Dominion Bank

#### STOCK LISTINGS

Toronto, Montreal and Vancouver Stock Exchanges

#### **EXECUTIVE OFFICES**

1060 - One Bentall Centre, Vancouver 1, B.C.

#### REGISTERED OFFICE

7th Floor, 900 West Hastings Street, Vancouver 1, B.C.

#### SUBSIDIARIES

Great West Steel Industries (Alta.) Ltd.,
Edmonton, Calgary and New Westminster
Great West Steel Industries (Sask.) Ltd., Saskatoon
Great West Steel Industries Inc., Seattle,
San Francisco and Los Angeles
Atlas Construction & Crane Service Ltd.,
Edmonton and Calgary
Birtley Engineering Limited, Chesterfield, U.K.
Birtley Engineering (Canada) Ltd., Calgary

Birtley Engineering Inc., Denver
Multiform Consultants Ltd., Vancouver
Wallclad Products Ltd., Richmond
International Brick & Tile Ltd., Edmonton

